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POST CONTROL EVALUATION
DWARF MISTLETOE CONTROL PROJECT
Campbell Cutover
Flaming Gorge Ranger District
Ashley National Forest

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Introduction: The Campbell Cutover Area F.Y. 1973 Dwarf Mistletoe (DM) Control Project consists of two areas designated as north and south. The two areas differ in mistletoe infection level; they will, therefore, be treated separately in this report. The south area was evaluated on June 4, 1974, by Plant Pathologist E. L. Hobbs. Forty 1/300th-acre temporary plots were established along a random line throughout the project at one-chain intervals. The north area was evaluated on June 5, 1974. Thirty-eight 1/300th-acre temporary plots were established at one-chain intervals. In both areas, data were taken on the level of infection, tree height, and d.b.h. Non-host plants were also noted.

Location: Campbell Cutover, Flaming Gorge Ranger District, Ashley National Forest. (See Aerial Photo C-ENR-14-53 located in the Regional Office DM Atlas.

Host and Forest Type: The host plant is lodgepole pine (Pinus contorta Dougl.). Lodgepole pine is also the forest type. Some aspen (Populus tremuloides Michx.). also occurs.

Causal Agent: Lodgepole pine dwarf mistletoe (Arceuthobium americanum Nutt. ex Englm.).

Stand Data:

South Area - The infection level in the regeneration is 14-15 percent. The infection class on all infected trees sampled is class 1 (Hawks.). This compares to the original level of 13 percent of class 1 and 2 infections.

North Area - The infection level of the regeneration in this area is 30 percent. The average infection class on trees sampled is class 1 or 2 with one tree rated at infection class 3. This area was not included in the original biological evaluation; therefore, no accurate comparisons can be made. At the time of the original biological evaluation there were no plans to treat this area.

Discussion: Even though the infection level in the understory has not been reduced in the south area, the infection class per tree has been reduced by removing infected trees in the thinning process. Most of the mistletoe plants found were young plants that were not apparent

at the time the project was carried out. Had this area not been thinned, these infections would have increased the percentage of infected trees and the infection class/tree. If mistletoe infected trees are removed in future thinning projects, it should be possible to keep the infection level low enough to prevent appreciable loss from dwarf mistletoe. With the heavily infected overstory removed, the rate of spread of the parasite should be considerably reduced.

The north area of the project was not included in the original biological evaluation. When the crew finished thinning the south area, they did the north area. Apparently the north area had a high level of infection. Whether the thinning operation reduced that level is not known since there are no precontrol data. However, in the planned F.Y. 1975 project area adjacent to the north area, the infection level is 52 percent. It is reasonable to assume that the level of infection in the north area was at least that high since it is downhill from the F.Y. 1975 project area.

This area should definitely be reworked within a period of 10 to 15 years in order to keep the infection level down.

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